

## Section 1-5: Angle Relationships

By the end of this lesson, you should be able to answer:

- How do you identify and use special pairs of angles?
- How do you identify perpendicular lines?

Define the following:

1. Adjacent Angles

2. Linear Pair

3. Vertical Angles

4. Complementary Angles

5. Supplementary Angles

6. Perpendicular

Type of Angle Relationship	Example	Some Conclusions We Can Make
Adjacent Angles		
Linear Pair		
Vertical Angles		

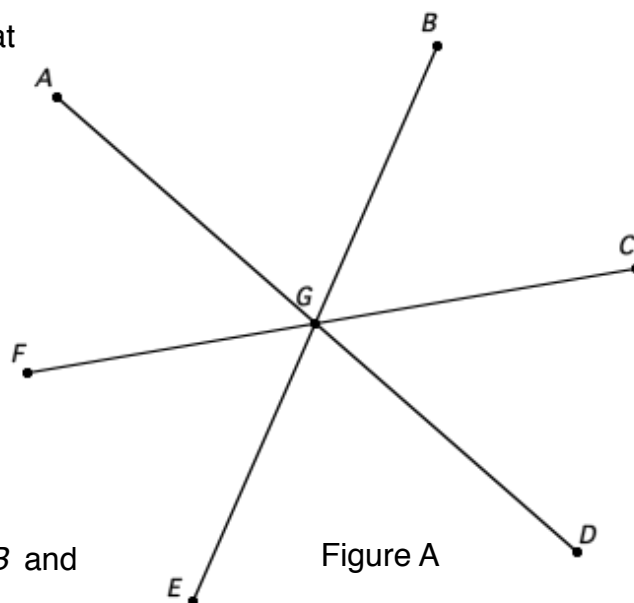
*Example 1:* Use Figure A. Name a pair that satisfies each condition.

a. A pair of vertical angles

b. A pair of adjacent angles

c. A linear pair

d. What is the relationship between  $\angle FGB$  and  $\angle BGD$  ?



*Example 2:* Use figure B. Find answers to satisfy each condition.

a. Name two complementary angles

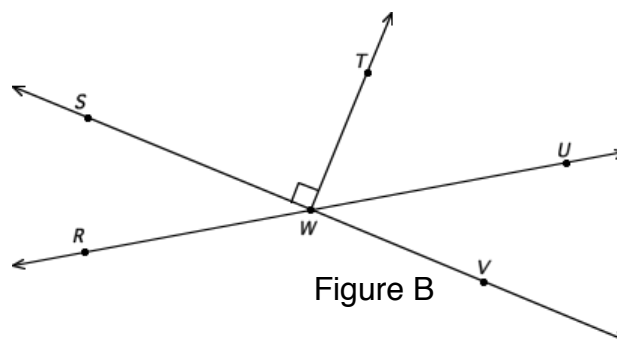
b. Name two supplementary angles

c. If  $m\angle RWS = 72^\circ$ , find  $m\angle UWV$

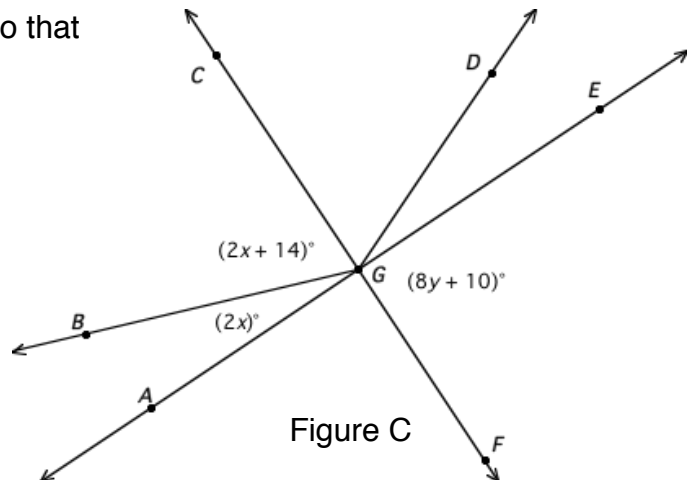
d. If  $m\angle RWS = 72^\circ$ , find  $m\angle RWV$

e. Name two perpendicular segments

f. If  $m\angle UWV = 47^\circ$ , find  $m\angle UWT$



Example 3: Use figure C. Find  $x$  and  $y$  so that  $\overleftrightarrow{AE} \perp \overleftrightarrow{CF}$ .



Example 4: Find the measures of two supplementary angles so that the difference between the measures of the two angles is 44.

Problem Set:

"A ship in port is safe, but that's not what ships are built for."  
 - Grace Murray Hopper